

PARAMETRIC ABSORPTION OF UPPER
HYBRID WAVES IN A MAGNETIZED PLASMA

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S u m m a r y

The absorption processes for high-frequency (HF) waves in the upper-hybrid frequency range in a inhomogeneous magnetized plasma with density gradient are considered. The expression for the effective absorption length of an external HF wave as a function of the density, temperature, plasma-density gradient, and frequency and amplitude of the pump wave is derived. It is shown that, for the parameters typical of thermonuclear plasmas, the effective absorption length is comparable with the plasma size, which results in efficient dissipation of the HF power.